

REMARKS/ARGUMENTS

Claims 1-36 are pending herein. Claims 3, 4, 10, 24-26 and 28-32 have been amended for clarification purposes only.

Applicants greatly appreciate the Examiner's indication that pending claims 1, 2 and 5-9 are allowed. Applicants further appreciate the Examiner's indication that pending claims 3, 4 and 31-36 would be allowed if rewritten in compliance with §112, second paragraph, and that claim 25 would be allowed if rewritten in independent form in compliance with §112, second paragraph. For the reasons discussed below, however, Applicants believe the pending independent claims 10, 24, 26 and 28 are also allowable over the applied prior art of record.

Applicants also appreciate the Examiner's detailed review of the drawings and specification. Applicants have amended the specification to include a description of reference numerals 106, 111 and 112, and have adopted the specification changes recommended by the Examiner in paragraph 9 of the Office Action.

1. The rejection of claims 3, 4, 25-27 and 30-36 under §112, second paragraph is noted, but deemed moot in view of the rewritten claims submitted above.

2. Claims 10-24 and 26-30 were rejected under §102(e) over Olson. This rejection is respectfully traversed.

Pending independent claims 10, 24 and 26 each recite, among other things, a DDR type zeolite membrane exhibiting single gas permeances at room temperature and 100°C that are different among at least two types of gases selected from the group of gases recited in each of those claims. The applied prior art of record, discussed below, does not disclose or suggest a DDR zeolite material exhibiting such a physical property (i.e., exhibiting single gas permeances of at least two types of gases that are different at room temperature and at 100°C).

Applicants respectfully submit that they were the first to discover a DDR zeolite membrane having a physical property that has never before been exhibited by any known DDR zeolite material. That is, as discussed starting on page 3, line 3 of the original specification, no known DDR zeolite membrane material has ever exhibited a single gas permeance at room temperature that is different from the single gas permeance at 100°C for at least two types of gases selected from the gases recited in pending independent claims 10, 24 and 26. The presently claimed DDR zeolite membrane is achieved, for example, by following the method steps recited in pending claim 1, which the PTO has allowed. Applicants respectfully submit that the result of following the allowed method steps is a DDR zeolite membrane, as presently claimed, having a physical property (i.e., each single gas permeance at room temperature being different from the single gas permeance at 100°C) that has never existed in known DDR zeolite materials.

The PTO appears to acknowledge that Olson, the applied prior art of record, does not disclose a DDR membrane in which each single gas permeance at room temperature and at 100°C is different for at least two gases permeating therethrough. The PTO is alleging, however, that “The gas permeance values for the dependent claims do not change the DDR membrane structure and are thus given no patentable weight with respect to these membrane article and apparatus claims” (see Office Action, paragraph 5). As such, the PTO appears to be treating recitation of the single gas permeance features recited in pending claims 10, 24 and 26 as an intended use. Applicants respectfully request that the PTO reconsider this position, because, for the reasons discussed above, a DDR zeolite membrane, as claimed, exhibiting a single gas permeance (for at least two gases) at room temperature that differs from the single gas permeance at 100°C is a physical property, not an intended use. Again, Applicants were the first to discover a DDR material having a specific physical property. Applicants are not simply using a particular material in a particular manner so as to achieve a certain result, as appears to be the PTO’s position.

With respect to pending independent claim 28, Applicants can find no disclosure or suggestion in Olson that a DDR type zeolite layer is deposited within the pores of a substrate and has a thickness of 5 to 50 times that of the mean pore diameter of the pores in the substrate. Should this rejection be maintained in a subsequent Office Action, Applicants respectfully request that the PTO provide a citation to Olson showing these claimed features.

In view of all of the foregoing, reconsideration and withdrawal of the §102 rejection over Olson are respectfully requested.

The specification was amended in the March 9, 2004 Preliminary Amendment to incorporate by reference the priority applications. Since the specification was amended after the inventors signed the original Declaration, a new Declaration is filed herewith. The Examiner is requested to acknowledge receipt and entry of the new Declaration.

If the Examiner believes that contact with Applicants' attorney would be advantageous toward the disposition of this case, the Examiner is herein requested to call Applicants' attorney at the phone number noted below.

The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-1446.

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Date

Respectfully submitted,



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Enclosure:

New Declaration and Power of Attorney

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